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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,761	01/09/2004	William Roy BURKE	05111.0102.DVUS03	1760
22446	7590	10/31/2005	EXAMINER	
ICE MILLER ONE AMERICAN SQUARE BOX 82001 INDIANAPOLIS, IN 46282-0200			RAO, G NAGESH	
			ART UNIT	PAPER NUMBER
			1722	

DATE MAILED: 10/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/707,761	BURKE, WILLIAM ROY	
	<b>Examiner</b>	<b>Art Unit</b>	
	G. Nagesh Rao	1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- 1) Claims 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Nissel (US Patent No. 3,959,431).

Nissel 431 teaches an apparatus (Figure 1) where there is a mixer (21) having a discharge end, and an extrusion die having a die inlet that is connected to the discharge end of the mixer, a die exit dimensioned to have a cross-section that is capable of producing a product similar to dimensioned finished gypsum wallboard core, and there being a manifold disposed between the die inlet and the die exit (22,24,25, and 29). The die inlet of the extrusion die has a cross sectional area that is substantially the same as that of the mixer discharge end, and the die exit has a rectangular cross-section.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2) Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersen (US Patent No. 5,798,151) in view of Edwards (US Patent No. 3,821,868).

Andersen 151 teaches an apparatus (Figure 6) where there is a mixer (24) having a discharge end, and an extrusion die having a die inlet that is connected to the discharge end of the mixer, a die exit dimensioned to have a cross-section that is capable of producing a product similar to dimensioned finished gypsum wallboard core, and there being a manifold disposed between the die inlet and the die exit (22,24,25, and 29). The die inlet of the extrusion die has a cross sectional area that is substantially the same as that of the mixer discharge end, and the die exit has a rectangular cross-section. Also the extrusion die has at least one secondary inlet (Figure 18 Element 58). There being commonly known in the art to have a substantially flat movable adjacent to the die exit (Col 3 Lines 46-68 and Col 4 Lines 1-3) and a dryer means (Col 53 Lines 15-29). The mixer furthermore capable of being comprised of a twin screw continuous mixer or a single screw mixer (Col 43 Lines 53-63 and Figure 6).

Although the gypsum material is capable of being dimensioned to have a ratio of width to thickness of about 48:1 to 216:1, thus in translation various dimensions of die sizes to extrude out the desired shape of the extruded sheets of material which is interpreted as being resultant effective variables, it is not explicitly taught as such by Andersen 151.

It would have at the time been obvious to modify the teachings of Andersen 151 by selecting dimensions to match the product of Edwards 868, where it is taught that it is well known in the gypsum art to have wall board, of drywall, of decorating paneling, or the like; and, in one preferred embodiment of the present invention, that panel is 8 feet high, 4 feet wide, and three-eighths of an inch thick -- and thus has dimensions that are standard in the construction industry (Col 8 Lines 34-59).

Therefore reinforcing the concept that the ratio to width dimension of applicant's claimed invention is view as a resultant effective variable and that the art taught by Andersen 151 and Edwards 868 more than teaches this capability and reasonability to have such a known limitation.

3) Claims 11-13 rejected under 35 U.S.C. 103(a) as being unpatentable over Andersen (US Patent No. 5,798,151) in view of Edwards (US Patent No.

3,821,868) in further view of Pearson (US Patent No. 3,832,250) in further view of Kinkade (US Patent No. 3,527,447).

From the aforementioned Andersen 151 pertains to an apparatus for extruding flat sheets of material such as gypsum wallboard material. And when combined with Edwards 868 teaches that it is known to have die dimensions that are known to be capable of extruding product at a 48:1 to 216:1 ratio of width to thickness.

Although Andersen 151 teaches about a drying means for curing the extruded material it fails to teach the use of a convection drier means.

Pearson 250 pertains to an apparatus for producing gypsum flat sheet board materials where in element 57 of Figure 1, it is taught to use a convection drier means.

The combined teachings of Andersen 151 and Pearson 250 fail to teach the use of a microwave heating means as an alternative to the convection drier means.

Kinkade 447 pertains to a preparation of calcined gypsum material, where it is taught that microwaves could be used to treat and cure the extruded material (Col 3 Lines 19-37).

It is obvious to replace the heating means taught in Andersen 151 with that of what is taught in Pearson 250 or Kinkade 447 depending on the desired heating

means results the operator of the device wishes to obtain, since both heating means have been well known and commonly used in the art for decades.

4) Claims 17-19 rejected under 35 U.S.C. 103(a) as being unpatentable over Nissel (US Patent No. 3,959,431) in view of Andersen (US Patent No. 5,798,151) in further view of Edwards (US Patent No. 3,821,868).

Nissel 431 from the aforementioned taught an apparatus (Figure 1) where there is a mixer (21) having a discharge end, and an extrusion die having a die inlet that is connected to the discharge end of the mixer there being a manifold between the inlet and outlet, and a die exit dimensioned to have a cross-section in rectangular form.

The specified dimensions of the rectangular form of the die cross-section are not taught in Nissel 431.

However in an apparatus pertaining to the extrusion of flat sheets of material, Andersen 151 teaches various sized dimensions that would be known to use in the die size of the material, given to its industrial state of use as well teaching that the sizes of extruded material although due to the size of the die are a resultant effective variable.



It would be obvious to one skilled in the art to modify the teachings of Nissel 431 with that of Andersen 151, to be able to transform the apparatus into a more industrial size of material handling.

The hypothetical teachings of Nissel 431 and Andersen 151 are further reinforced by the teachings of Edwards 868 as discussed below.

Edwards 868 teaches that it is well known in the gypsum art to have wall board, of drywall, of decorating paneling, or the like; and, in one preferred embodiment of the present invention, that panel is 8 feet high, 4 feet wide, and three-eighths of an inch thick -- and thus has dimensions that are standard in the construction industry (Col 8 Lines 34-59).

Therefore it would be obvious to one skilled in the art to modify the teachings of Nissel 431 and Andersen 151 with that of Edwards 868 to reinforce the idea that is well known to manufacture material at those dimensions and that this is seen as a resultant effective variable operating on the apparatus.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to G. Nagesh Rao whose telephone number is (571) 272-2946. The examiner can normally be reached on 9AM-5PM.



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GNR



**ROBERT DAVIS**  
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10/28/05